A B S T R A C T

A method for the manufacture of micro metallic structures having high aspect ratios is provided, wherein said method comprises the step of photolithographically producing trenches in a substrate. Polymer chains are formed on the inner surface of said trenches. Thus, the critical dimensions in the photolithographical process can be reduced to any dimension down to zero. The method is quite general in its application to any process that includes the definition of a critical dimension by photolithography. Immediate applications are the reduction of the read and write dimensions in thin film magnetic heads, but the invention can be used in any technology where the manufacture of microstructures having a high aspect ratio is of interest.

(Fig. 4)